

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of
Masayuki SHIBUTA
Serial No. 09/734,579
Filed December 13, 2000

: ATTN: BOX RCE
: Docket No. 2000-1704A
: Group Art Unit 2834
: Examiner Elkassabgi, H.

VIBRATION GENERATING DEVICE OF SMALL WIRELESS MACHINE

AMENDMENT

Assistant Commissioner for Patents,
Washington, D.C.

THE COMMISSIONER IS AUTHORIZED
TO CHARGE ANY DEFICIENCY IN THE
FEES FOR THIS PAPER TO DEPOSIT
ACCOUNT NO. 23-0975

Sir:

Responsive to the Final Office Action mailed October 23, 2002, please amend the
above-identified application as follows:

IN THE TITLE:

Please replace the original title of the specification with the following new title.
--MOTOR SHAFT CAULKED WITHIN GROOVE OF ECCENTRIC LOAD--

IN THE DRAWINGS:

*Formal Drawings for Figures 3 and 8, incorporating the changes as shown in red on
the attached sheets of the proposed drawing amendments, have been filed.*

IN THE SUBSTITUTE SPECIFICATION:

*Please add the following paragraph on page 11 between paragraphs [0034] and
[0035]:*

In other words, as shown in Fig. 3 each sidewall 14 includes; an inner surface 14d
such that the groove 13 is defined between these inner surfaces; an outer surface 14e; the

end surface 14a, which interconnects the inner surface and the outer surface, with the end surface having a first end 14f and a second end 14g; and the caulked portion 14c which extends into the groove from a location that is between the inner surface and the outer surface, with the caulked portion being positioned at a level that is closer to the bottom of the groove than is the level at which the end surface is positioned such that defined in the end surface is a recess 14h which opens into the groove and does not extend completely across the end surface, whereby along an intersection of the end surface and the outer surface the end surface is continuous from the first end to the second end as shown by the outer peripheral side portion 14b.

Please replace the paragraph beginning at page 18, line, [0052] with the following new paragraph:

Then, in a tip portion end surface 44a of the side wall 44, and at the central portion thereof, but not at both end portions thereof, in an axial line direction, a portion 44c of the side wall 44, which does not include an outer peripheral side portion 44b of the side wall 44, at the side of the groove 43 is caulked by a cylindrical caulking punch 45 from an opening side of the groove portion 43 to a bottom side thereof, so that the above vibrator 40 is coupled to the rotating shaft 42. Here, as a result of caulking by the cylindrical caulking punch 45, concave caulked portions 44c formed at the tip portion end surfaces 44a, respectively, become substantially semi-circular, and are formed so that a length dimension L in the axial line direction at the side of the groove portion 43 (i.e. a first side of a recess 44d defined by caulked portion 44c) becomes larger than a length dimension at an outer peripheral side of the concave caulked portions 44c (i.e. a second side of the recess 44d).